

## REMARKS

After entering the foregoing amendments, Claims 1-17 and 48-78 are pending in the Application and are presented for reconsideration and further examination in view of the following remarks. By the foregoing amendments, Claims 1 and 4 have been amended and claims 18-47 and 79-103 have been cancelled without prejudice or disclaimer.

### Objections to the Drawings

In the Office action, figures 1 and 3 were objected to. Substitute drawing sheets are submitted herewith wherein the descriptive wording has been added to each of the elements identified by the Examiner.

### Rejections Under § 102(a)

In the office action, Claims 1-6, 8-17, 48-61, and 63-78 were rejected under 35 U.S.C. § 102(a) as being anticipated by Naghian (WO 00/49824). Applicant reserves the right to present evidence of an earlier invention date than the publication date of Naghian. Applicant also respectfully traverses the rejection under Naghian for the reasons set forth below. Though the following remarks are directed at primarily to the rejected independent claims, they apply with equal force to each of the claims which depend therefrom.

One example of Applicant's claimed invention can be used to provide for call admission in a system where the PHY mode of units can be adaptively changed in response to changing conditions. As is explained on the sentence bridging pages 6 and 7 of the present Application, "PHY mode" indicates characteristics of a communication channel or link including modulation scheme and/or forward error correction technique. Each unit can have a planned PHY mode (for example, QAM 16) which can be determined, for example, when the system is initialized. The planned PHY mode can be determined based upon distance and objects such as buildings which are in the transmission path. The planned PHY mode could be changed during operation of the system to a more robust modulation scheme with a lower overall data rate (QAM 4) in view of changing transmission conditions, for example, rain. However, assuming the worst case condition when allowing for the admission of new connections could greatly decrease usage (overall bandwidth) of the system. Therefore the method takes into account bandwidth commitments based on the planned PHY mode for each connection and the current actual modes in use ("determining a second hard bandwidth commitment for the existing connections between

the base station and the associated CPEs based on a current PHY mode for each connection.”)

Naghian describes a call admission system for use in a cellular telephone network. The network described by Naghian does not vary the PHY mode of the communication links. In the system described by Naghian, “If a bearer request would result in the load being over the first predetermined limit, the admission control entity tries to make room for the bearer request, i.e., release resources without degrading the quality of the service (QoS) provided for the existing bearers. The admission control entity may perform this by adjusting power control parameters, handover control parameters or both.” (Naghian, page 4, lines 20-24.) Naghian does not use a planned PHY mode but appears to only use an actual PHY mode. That is understandable because the PHY mode in Naghian does not change. Naghian does not describe or suggest a system that uses different modulation techniques or error correction techniques and takes those resulting bandwidth requirements into account in a call admission procedure.

Referring to claim 1, Naghian fails to teach or suggest each of the limitations of the claim. Claim 1 is directed to a method for controlling the admission of connections in a wireless communication system in which the PHY modes of the uplinks and downlinks can vary over time. One aspect of the claim relates to “summing the hard bandwidth commitments . . . including the new connection . . . based on a planned PHY mode for each connection.” However, in the office action, the portion of Naghian pointed to as corresponding to this claim limitation determines the current load of the system, “for example by requesting current load information from a load control entity,” and then calculates the load as a result of adding the bearer request. (Naghian, page 6, lines 9-13.) Therefore, at least in connection with the existing connections, the current power levels of the current connections are used, not planned power levels. In addition, applicant respectfully submits that the term “planned PHY mode” as used in the present application does not correspond to power levels.

Next, in the office action, the claimed element of “determining an air link rate . . .” is stated to be anticipated by step 120 in figure 1 of Naghian. In paragraph 43 of the application, the air link rate is described as “the amount of bandwidth available between the CPEs and the base station. However, in Naghian step 120’s associated description relates to a load limit, which Naghian makes clear is a power limit (Naghian, page 3, lines 21-29), not “the amount of bandwidth available between the CPEs and bay station.” Therefore, Naghian’s description of whether the power load of the system is under a first limit does not correspond to determining an

air link line rate between base station and the associated CPEs. Naghian does not appear to ever determine an air link line rate.

With regard to independent claim 48, Naghian fails to teach or suggest each of the limitations of the claim. Claim 48 is directed to a communication system that controls the admission of new connections and the suspension of existing connections between a base station and customer premise equipments (CPEs), wherein the base station and the CPEs are each configured to increase or decrease the robustness of their transmission modulation technique by adapting channel characteristics, for example, their PHY mode. Naghian does not describe a system that increases or decreases the robustness of transmission modulation techniques.

For example, Naghian does not describe CPEs with both a current PHY mode and a planned PHY mode as set forth in claim 48. The devices in Naghian appear to be able to only vary their power levels, not their PHY modes.

In addition, the call admission control module of claim 48 determines whether to allow a new connection based on a comparison of a total air link line rate between the first and second CPEs and the base station. No such determination is taught or suggested by Naghian. First, Naghian does not discuss or disclose any air link line rate but only discusses power levels (“load”). Second, because the system of Naghian does not vary the modulation technique of the units, Naghian does not have both an initial PHY mode and a current PHY mode. In addition, PHY modes are not part of Naghian’s system for call admission. Naghian instead looks at power level requirements.

Claim 66 is directed to method of and claim 72 is directed to a system for performing call admission control in a communication system that supports subscriber level adaptive PHY modes. Because Naghian does not describe a system or method that supports subscriber level adaptive PHY modes, many of the elements of claims 66 and 72 are not taught or suggested by Naghian.

For example, Naghian does not disclose “determining a reference line rate for the communication system when using a reference PHY mode” as in claim 66. Naghian determines an upper limit to the “stable region” which is the region within which can handle all traffic. (Naghian, page 5.) However, in Naghian the stable region is determined based upon power limits of the system, not a reference line rate based upon a reference PHY mode.

In addition, Naghian does not disclose “determining multiplicative rates for normalizing CPEs selected PHY modes to the reference PHY mode” as set forth in claim 66. Because Naghian does not use different and varying PHY modes, there is no need in the system of Naghian to normalize selected PHY modes for comparison to a reference line rate and there is no such disclosure in Naghian.

With regard to claim 72, Naghian does not teach or suggest a system for performing call admission with terminals with current and initial PHY modes. The system of Naghian does not use different and varying PHY modes. In addition, as was noted above, Naghian does not teach or disclose determining whether to allow a new connection based on a comparison of an air link rate with a total hard bandwidth commitment.

In view of the foregoing, applicant respectfully requests that each of the rejections under section 102 be withdrawn.

#### Rejections Under § 103(a)

In view of the foregoing remarks regarding the rejections under section 102, applicant submits that each of the rejections under section 103 are overcome and should be withdrawn.

#### Conclusion

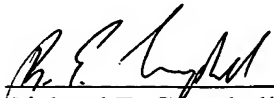
The Applicant has endeavored to address all of the Examiner’s concerns as expressed in the outstanding Office Action. Accordingly, amendments to the claims, the reasons therefor, and arguments in support of the patentability of the pending claim set are presented above. Any claim amendments which are not specifically discussed in the above remarks are made in order to improve the clarity of claim language, to correct grammatical mistakes or ambiguities, and to otherwise improve the capacity of the claims to particularly and distinctly point out the invention to those of skill in the art. In light of the above amendments and remarks, reconsideration and withdrawal of the outstanding rejections is specifically requested. If the Examiner finds any

remaining impediment to the prompt allowance of these claims that could be clarified with a telephone conference, the Examiner is respectfully requested to initiate the same with the undersigned.

Respectfully submitted,

Procopio, Cory, Hargreaves & Savitch LLP

Dated: 10/1/04

By:   
Richard E. Campbell  
Reg. No. 34,790

Procopio, Cory, Hargreaves & Savitch LLP  
530 B Street, Suite 2100  
San Diego, California 92101-4469  
(619) 238-1900